

REMARKS/ARGUMENTS

Claims 1-18 are pending. Claim 1 has been amended to further define "P". Support for this amendment is found in the specification at page 6, line 30 to page 7, line 2. Claim 6, which was otherwise allowable, has been placed in independent form. Claim 10 tracks prior Claim 6, but depends from Claim 1 as now amended. New Claims 11-18 find support in Claim 1 and on page 3, lines 22-23, of the specification. Accordingly, no new matter has been added.

Rejection—35 U.S.C. §112, second paragraph

Claim 2 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite. The Applicants traverse this rejection, because Claim 1 refers to a "partial pressure" and Claim 2 further limits the conditions of Claim 1 to specify that the "total pressure" does not exceed 11 bar. Since the partial and total parameters are different, and Claim 2 must conform to both the partial pressure parameter of Claim 1 and the total pressure parameter specified by Claim 2, the claim is not indefinite and this rejection may be withdrawn.

Rejection—35 U.S.C. §103

Claims 1-4 and 7-9 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ooms et al., U.S. Patent No. 6,204,357. This rejection may be withdrawn in view of the amendment of Claim 1 to exclude the cyclodextrin(s) of Ooms et al.

As disclosed in col. 2, lines 5-14 of Ooms et al., the Ooms catalysts must comprise "one or more, preferably one, cyclodextrins". On the other hand, Claim 1 of the present invention has been amended to require that P (the organic additive) is not a cyclodextrin. Therefore, the catalyst used in the process of the invention is compositionally different than

the Ooms catalyst which must contain cyclodextrin, and this rejection may now be withdrawn. The Ooms disclosure is discussed in greater depth below.

Ooms et al. (Abstract) disclose double metal cyanide catalysts, a process for their preparation, and a process for the preparation of polyetherpolyols by the polyaddition of alkylene oxides to starter compounds which contain active hydrogen atoms.

The Ooms double metal cyanide catalyst comprises:

- a) one or more double metal cyanide compound,
- b) one or more organic complex ligand and one or more cyclodextrins with the proviso that the organic complex ligand and the cyclodextrin are different compounds, see column 2, lines 5 to 14.

The organic complex ligands are water-soluble organic compounds containing heteroatoms, such as for example, oxygen, nitrogen, phosphorus and/or sulfur, which are capable for producing complexes with a double metal cyanide compound. The organic complex compounds can be chosen from alcohols, aldehydes, ketones, ethers, esters, amides, urea, nitriles, sulfides and mixtures thereof. Particularly preferred compounds are ethanol, isopropanol, n-butanol, isobutanol, sec-butanol and tert-butanol, see column 4, lines 14 to 32.

On the other hand, in contrast to the disclosure of Ooms et al. Claim 1 requires a process in which a catalyst of general formula (I) is utilized, wherein P is chosen from the group consisting of polyether, polyester, polycarbonates, polyalkylene glycol sorbitan esters, polyalkylene glycol glycidyl ethers, polyacrylamide, poly(acrylamide-co-crylic acid), polyacrylic acid, poly(acrylamide-co-maleic acid), polyacrylonitrile, polyalkyl acrylates, polyalkyl methacrylates, polyvinyl methyl ether, polyvinyl ethyl ether, polyvinyl acetate, polyvinyl alcohol, poly-N-vinylpyrrolidone, poly(N-vinylpyrrolidone-co-acrylic acid), polyvinyl methyl ketone, poly(4-vinylphenol), poly(acrylic acid-co-styrene), oxazoline polymers, polyalkyleneimines, maleic acid and maleic anhydride copolymers,

hydroxyethylcellulose, polyacetates, ionic surface-active and interface active compounds, bile acid or salts thereof, esters or amides, carboxylic esters of polyhydric alcohols and glycosides.

The meaning of P in combination with the meanings of A, X and L in general formula (I) of amended Claim 1 excludes the possibility that cyclodextrin or cyclodextrin derivatives are part of the double metal cyanide catalyst that is utilized in the process according to claim 1 of the present invention. With the meanings of P, A, X and U as mentioned above it is not possible that a catalyst according to the invention is employed in the inventive process as disclosed in Oom et al., because all the catalysts that are disclosed in Oom et al. must contain one or more cyclodextrins, as disclosed in column 2, lines 12 to 14 of Oom et al.

The disclosure Oom et al. that double metal cyanide catalysts shall contain at least one cyclodextrin as ligand in order to be suitable for the preparation of polyetherpolyols by the reaction of alkylene oxides with starter compounds having active hydrogen atoms does not suggest or point in the direction of the process according to amended Claim 1 of the present invention.

The disclosure that cyclodextrin type ligands, ligands that are in the form of a ring and bear a plurality of hydroxyl functions, have advantageous effects on the catalytic activity in the mentioned reaction does not suggest or point in the direction that organic additives P that are chosen from the group as mentioned above, comprising polymeric compounds, like polyether, polyester, polycarbonates, polyalkylene glycol sorbitan esters, polyalkylene glycol glycidyl ethers, polyacrylamide, poly(acrylamide-co-crylic acid), polyacrylic acid, poly(acrylamide-co-maleic acid), polyacrylonitrile, polyalkyl acrylates and others have an advantageous effect on the catalytic activity of the claimed double metal cyanide catalysts.

Moreover, Ooms does not provide a reasonable expectation of success that omission of the Ooms cyclodextrin and/or the use of the materials specified for P in amended claim 1 would provide a catalysts with improved activity.

Accordingly, this rejection may be withdrawn because Ooms requires a catalyst containing at least one cyclodextrin, Ooms does not suggest the ingredients now required for element P of the invention, nor does Ooms provide a reasonable expectation of success for improved catalysts which omit cyclodextrin and/or which use the elements required by P of the present invention.

Rejection—35 U.S.C. §103

Claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over Ooms et al., U.S. Patent No. 6,204,357, further in view of Clement et al., U.S. Patent No. 6,355,845. This rejection may be withdrawn for the reasons discussed above, since the primary reference, Ooms et al., does not disclose, suggest or provide a reasonable expectation for the catalysts used in the process of the invention.

Clement et al. does not cure the deficiency of Ooms. Clement disclose that certain alcohol initiators containing unconjugated carbon-carbon double bonds can be alkoxyated with excellent efficiency and low production of by-products using a metal cyanide catalyst. As disclosed in column 6, lines 41 to 48, the catalyst is usually complexed with an organic complexing agent, chosen from alcohols, aldehydes, ketones, ethers, amides, nitriles, sulfides and the like.

The difference between the disclosure of Clement et al. and the process according to amended claim 1 is that the process of the invention uses Gueberet alcohols as starting compounds. As defined by the Examiner, Gueberet alcohols are beta-branched primary alcohols, but are not alcohols having conjugated carbon-carbon double bonds as disclosed in

Clement et al. In addition, the catalyst that is disclosed by Clement et al. does not contain compounds that correspond to the compounds of type P in general formula (I) of the present application.

Clement et al. would not suggest to a person having ordinary skill in the art and looking for an improved process for the alkoxylation of Gueberet alcohols to employ a catalyst according to general formula (I) as now required by claim 1. A catalyst that is used in a process for alkoxylation of compounds having unconjugated carbon-carbon double bonds is not supposed to show an improved activity in the alkoxylation of Gueberet alcohols. Therefore, Clement et al. do not point in the direction that the catalysts according to amended claim 1 show an advantageous behavior in the alkoxylation reaction of Gueberet alcohols.

Moreover, Clement et al. do not disclose or suggest that the sum of inert gas partial pressure and ethylene oxide pressure shall be in the range of 1 .5 bar to 6.0 bar as required by Claim 1. Accordingly, this rejection may now be withdrawn.

Rejection--Obviousness-type Double Patenting

Claim 7 was provisionally rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over Claims 11-15 of U.S. Application 2005/0170991 A1. The PAIR system indicates that this is a new application ready for examination. The Applicants respectfully request that this provisional rejection be withdrawn upon the allowance of the present application, if the copending application has not been allowed, see MPEP 804(I)(B).

Allowable Subject Matter

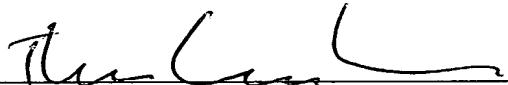
The Applicants thank Examiner Brown for indicating that the subject matter of Claim 6 is in condition for allowance, except that it depends from a rejected claim. Claim 6 has now been placed in independent form.

CONCLUSION

In view of the above amendments and remarks, the Applicants respectfully submit that this application is now in condition for allowance. Early notification to that effect is earnestly solicited.

Respectfully submitted,

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